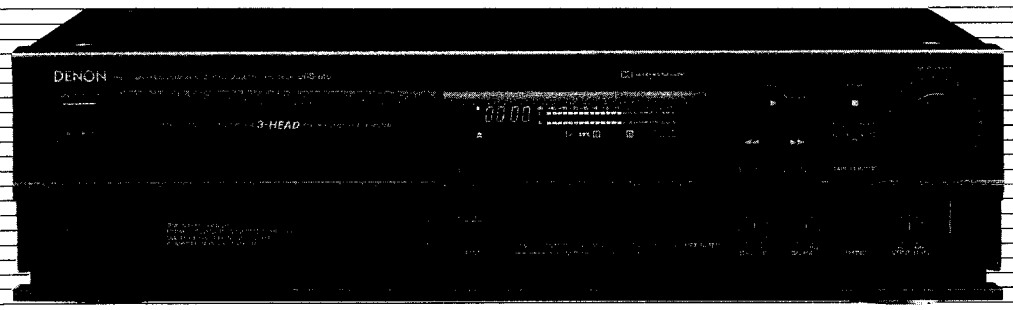
DENON

STEREO CASSETTE TAPE DECK

DRS-810

OPERATING INSTRUCTIONS
BEDIENUNGSANLEITUNG
MODE D'EMPLOI
ISTRUZIONI PER L'USO
INSTRUCCIONES DE OPERACION
GEBRUIKSAANWIJZING
BRUKSANVISNING
INSTRUÇÕES DE OPERAÇÃO



FOR ENGLISH READERS	PAGE 3 ~ PAGE 12	PARA LECTORES DE ESPAÑOL	PAGINA 41 ~ PAGINA 47
FÜR DEUTSCHE LESER	SEITE 13 ~ SEITE 22	VOOR NEDERLANDSTALIGE LEZERS	PAGINA 48 ~ PAGINA 54
POUR LES LECTEURS FRANCAIS	PAGE 23 ~ PAGE 32	FÖR SVENSKA LÄSARE	SIDA 55 ~ SIDA 61
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IMPORTANT TO SAFETY

WARNING :

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

Please, record and retain the Model name and serial number of your set shown on the rating label.
Model No. DRS-810 Serial No.

• FOR CANADA MODEL ONLY

CAUTION

TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

• POUR LE MODELE CANADIEN UNIQUEMENT

ATTENTION

POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

IMPORTANT
(BRITISH MODEL ONLY)

The wires in this mains lead are coloured in accordance with the following code :

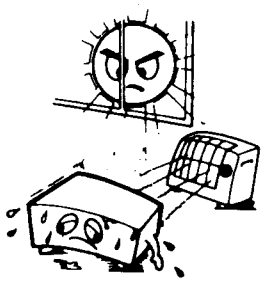
Blue : Neutral
Brown : Live

The colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

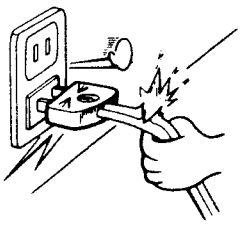
FOR YOUR SAFETY
(AUSTRALIAN MODEL ONLY)

To ensure safe operation, the three-pin plug supplied must be connected only with a standard three-pin power point which is effectively earthed through the normal household wiring.
Extension cords used with the equipment must be three-core and be correctly wired to provide connection to earth. Wrongly wired extension cords are a major cause of fatalities.
The fact that the equipment operates satisfactorily does not imply that the power point is earthed and that the installation is completely safe. For your safety, if in any doubt about the effective earthing of the power point, contact a qualified electrician.

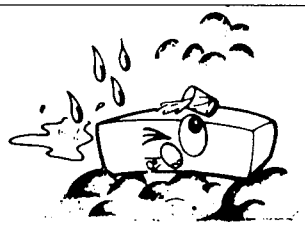
NOTE ON USE/HINWEISE ZUM GEBRAUCH/OBSERVATIONS RELATIVES A L'UTILISATION



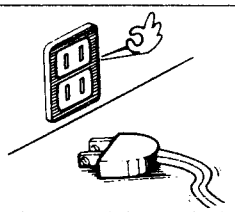
- Avoid high temperatures
  Allow for sufficient heat dispersion when installed on a rack.
- Vermeiden Sie hohe Temperaturen
  Sehen Sie zu, daß eine zureichende Luftzirkulation gewährleistet wird, wenn das Gerät auf ein Regal gestellt wird.
- Éviter des temperatures élevees
  Tenir compte d'une dispersion de chaleur suffisante lors de l'installation sur une etagère.



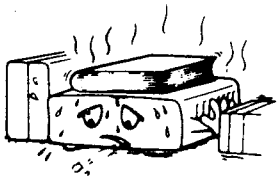
- Handle the power cord carefully.
  Hold the plug when unplugging the cord.
- Gehen Sie vorsichtig mit dem Netzkabel um.
  Halten Sie das Kabel am Stecker, wenn Sie den Stecker herausziehen.
- Manipuler le cordon d'alimentation avec précaution.
  Tenir la prise lors du débranchement du cordon.



- Keep the set free from moisture, water, and dust.
- Halten Sie das Gerat fern von Feuchtigkeit, Wasser und Staub.
- Proteger l'appareil contre l'humidité, l'eau et la poussière.

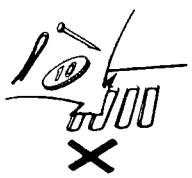


- Unplug the power cord when not using the set for long periods of time.
- Wenn das Gerät eine längere Zeit nicht verwendet werden soll, trennen Sie das Netzkabel vom Netzstecker.
- Débrancher le cordon d'alimentation lorsque l'appareil n'est pas utilisé pendant de longues périodes.



*(For sets with ventilation holes)

- Do not obstruct the ventilation holes.
- Die Beluftungsoffnungen durfen nicht verdeckt werden.
- Ne pas obstruer les trous d'aération.



- Do not let foreign objects in the set.
- Keine fremden Gegenstande in das Gerat kommen lassen.
- Ne pas laisser des objets etrangers dans l'appareil.

- Do not let insecticides, benzene, and thinner come in contact with the set.
- Lassen Sie das Gerat nicht mit Insektiziden, Benzin oder Verdünnungsmitteln in Berührung kommen.
- Ne pas mettre en contact des insecticides, du benzene et un diluant avec l'appareil.

- Never disassemble or modify the set in any way.
- Versuchen Sie niemals das Gerat auseinander zu nehmen oder auf jegliche Art zu verandern.
- Ne jamais démonter ou modifier l'appareil d'une manière ou d'une autre.

Thank you very much for purchasing the DENON component DRS-810.
The DENON DRS-810 is a top-of-the-line stereo cassette tape deck, capable of outstanding performance in combination with high-grade hi-fi systems.
DENON proudly presents this advanced tape deck to audiophiles and music lovers as a further proof of DENON's non-compromising pursuit of the ultimate in sound quality. The high quality performance and easy operation are certain to provide you with many hours of outstanding listening pleasure.

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Please check to make sure the following items are included with the main unit in the carton:

(1) Operating Instructions 1
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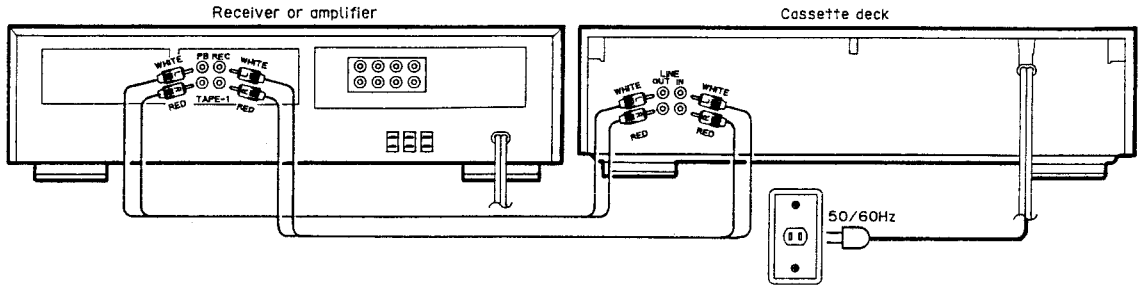
FEATURES

- Computer controlled silent mechanism
- Closed-loop dual-capstan tape transport.
- Non-Slip Reel Drive for Stabilizing Tape Tension
- Dual Power Supply
- Dolby HX-Pro Headroom Extension System
- Dolby B & C Noise Reduction Systems
- Manual Bias Adjustment Control
- Computing Linear Tape Counter with 4-Digit Readout and Memory Stop
- Cassette Stabilizer
- Remaining Tape Counter
- Music Search System
- REC Return System
- FL Peak Level Meters
- Auto Tape Selector
- Optional remote control system

CONNECTION

- Leave your entire system (including this cassette deck) turned off until all connections between the deck and other components have been completed.



■ Connecting the Deck to an Amplifier

- Before connecting the deck to your amplifier, please review your amplifier's instruction manual.
- Use the white plugs for the left channel and red plugs for the right channel.

■ Tape Dubbing

- Many stereo amplifiers and receivers have tape dubbing circuitry so that tape duplication can be performed between two or more tape decks. Review your amplifier's instruction manual for a full explanation of this mode of operation.

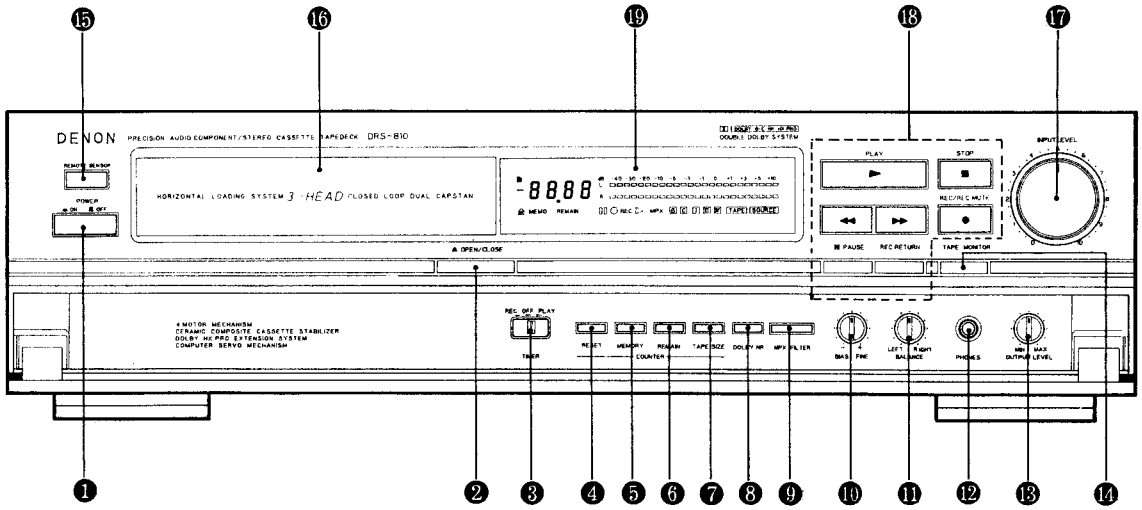
■ Connecting Headphones

To listen through headphones, plug your headphones into the PHONES jack.

■ Installation Precautions

If the deck is placed near an amplifier or tuner, noise (induced hum) or beat interference may result, especially during FM or AM reception. If this occurs, place the deck further away from other components or reorient its position.

NAMES AND FUNCTIONS OF PARTS



❶ Power Switch (POWER)
Press once to turn the power to deck on, and once more to turn the power off.
The deck remains in a stand-by (non-operative) mode for approximately 2 seconds after it is switched on.

❷ Open/Close Button (▲OPEN CLOSE)
Press this button to open and close the cassette tray.
The cassette tray can be closed even if the deck is in the standby mode.

❸ Timer Switch (TIMER)
This switch is provided for use with an optional audio timer for unattended recording or morning-alarm playback.
For non-timer operation, this switch should be set in the "OFF" position. See page 11.

❹ Counter Reset Button (RESET)
Press this button to reset the tape counter to zero.

❺ Counter Memory Button (MEMORY)
During rewinding operations, the tape will stop at the "00.00" counter point automatically when this button is pressed in.

❻ Remain Button (REMAIN)
Pressing this button will set Remaining Counter Mode.

❼ Tape Size Button (TAPE SIZE)
You can know accurate elapsed time of the tape by adjusting the TAPE SIZE button to the tape size used. When the TAPE SIZE button is pressed, the current tape size is displayed for 1 sec in the 4-figures counter. If you further press the button during the display, the tape size will change in the following cycle.

C-90 → C-75 → C-60 → C-100

❽ Dolby NR Button (DOLBY NR)
To record or play back tapes with Dolby B- or C-type noise reduction, set this switch to "B" or "C". Turn it off when not using the Dolby NR system.

❾ MPX Filter Button (MPX FILTER)
The MPX FILTER button should be used to prevent interference with the Dolby NR circuit when making Dolby NR encoded recordings of FM stereo programs. When making Dolby NR encoded recordings from any program source other than FM stereo, leave this button in the "OFF" position.

❿ Bias Fine Control (BIAS FINE)
(For Normal, CrO_2 and Metal tape)
Use this control to fine-adjust the bias. Standard bias is obtained at the center click-stop position. See page 8.

⓫ Balance Control (BALANCE)
This knob adjusts the recording level balance between the left and right channels. Turn it counter-clockwise to reduce the recording level for the right channel and clockwise to reduce the level for the left channel. Normally the knob should be set to the center click-stop position.

⓬ Head Phones Jack (PHONES)
For private music enjoyment without disturbing others, or for monitoring a recording, a headphones set may be connected to this jack. Use headhpones with an impedance rating of 8 to 1200 ohms.

⓭ Output Level Control (OUTPUT LEVEL)
This control adjusts playback, recording monitor, and headphones output levels for the both channels simultaneously.

⓮ TAPE MONITOR Button (TAPE MONITOR)
The SOURCE position of this button allows you to monitor the source program before it is recorded. The TAPE position of this button is used for tape playback monitoring or simultaneous monitoring during recording.

⓯ Remote Sensor (REMOTE SENSOR)
This is the sensor for the wireless remote control.

⓰ Cassete Tray
The cassette tray opens forward when the OPEN/CLOSE button is pressed.
Place the cassette tape with the exposed side facing away from you. To close the cassette tray, press the OPEN/CLOSE button again.

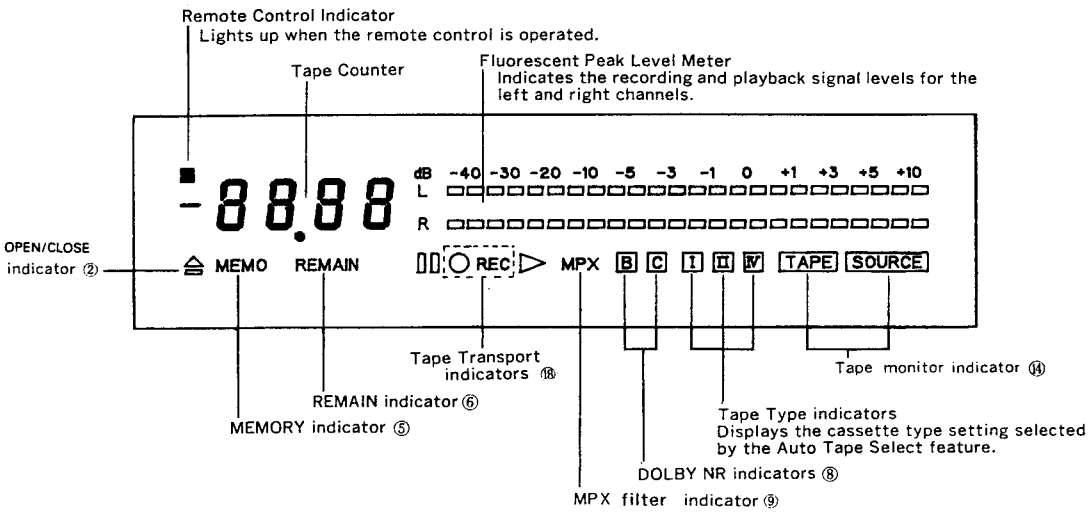
⓱ Input Level Control (INPUT LEVEL)
This knob adjusts the recording input level. It affects the level in both channels. See page 8.

⑱ Tape Transport Buttons

▶	Play Button	Press to playback tape.
■	Stop Button	Press to stop the tape in any mode.
◀◀	REW Button	Press for fast rewind.
▶▶	FF Button	Press for fast forwarding.
●	REC/REC MUTE Button	Press the REC/REC MUTE (●) button and PLAY buttons simultaneously to start recording. If only the REC/REC MUTE (●) button is pressed, the deck enters the Recording Pause mode. Pressing this button in the Recording Pause mode will start Auto Rec Mute, and a 5-second silent space is recorded onto the tape. See page 7.
II	Pause Button	Press this button to enter the recording pause mode from the recording or recording mute mode. Press this button to enter the playback pause mode from playback mode.
REC RETURN	REC Return Button	When this button is pressed during recording, the tape is rewound to the point at which recording started. Upon reaching this point, the recording standby mode (REC Pause) is engaged. See page 7.

⑲ Display

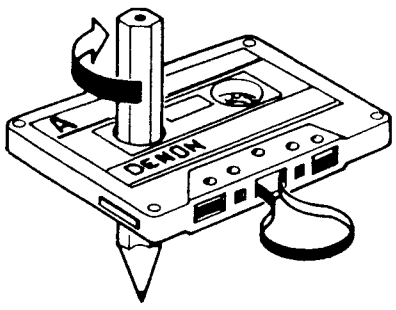
Indicators with an encircled number light up when the corresponding button is pressed.



CASSETTE TAPES

■ Handling Precautions

- C-120 Cassettes
  C-120 cassette tapes are not recommended as they use a very thin tape base which may become tangled around the capstan or pinchroller.
- Tape slack
  This cassette deck incorporates an automatic tape slackness preventive mechanism, but it can not prevent such a slackness as shown below. Remove it with a pencil or the like prior to use.

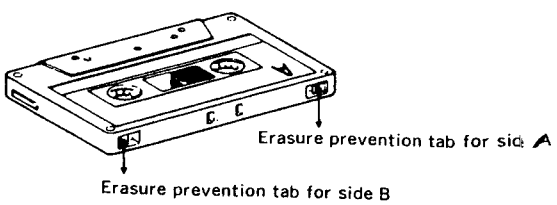


■ Storage Precautions

- Do not store cassette tapes in a place where they will be subject to:
  - Extremely high temperature or excessive moisture
  - Excessive dust
  - Direct sunlight
  - Magnetic fields (near TV sets or speakers)
- To eliminate tape slack, store your cassettes in cassette cases with hub stops

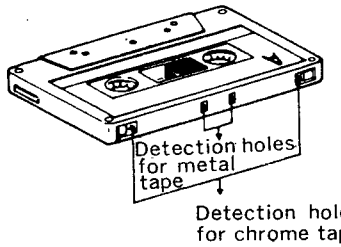
■ Accidental Erasure Prevention

- All cassettes have erasure prevention tabs for each side. To protect valuable recordings from accidental or inadvertent erasure, remove the tab for the appropriate side with a screwdriver or another tool.
- To record on a tape whose erasure prevention tabs have been removed, cover the tab holes with adhesive tape.



AUTO TAPE SELECT FEATURE

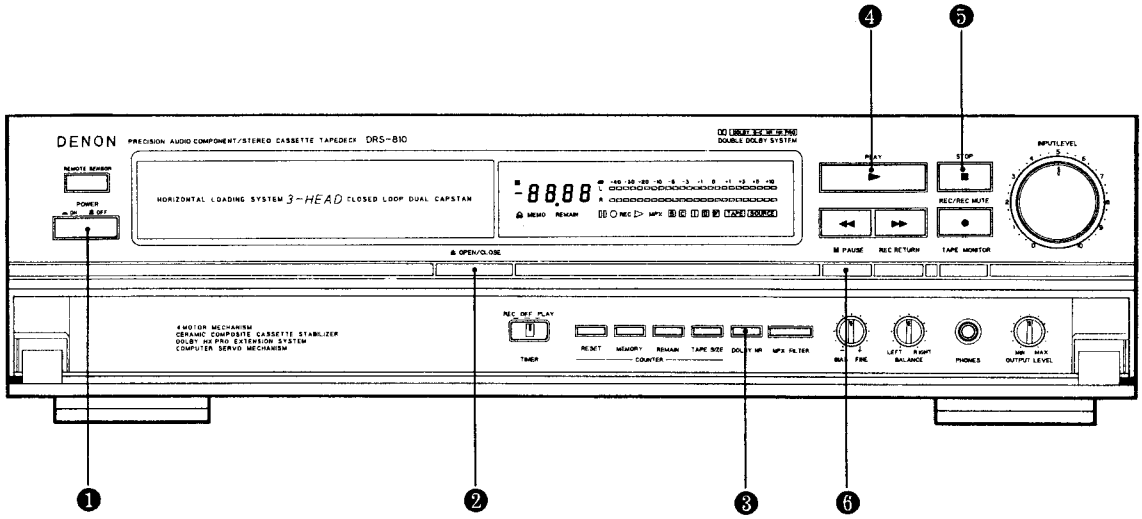
This Stereo Cassette Deck contains an Auto Tape Select feature which automatically selects the optimum bias and equalization for the tape in use. This is accomplished by detection of tape type detection holes in the cassette housing.



- If a tape without tape type detection holes is used, the deck will automatically adjust itself for normal tapes.

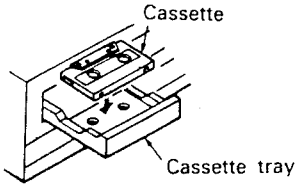
PLAYBACK

- Switch on your amplifier or receiver.
- Set the Tape Monitor switch on your amplifier or receiver to the TAPE position.
- The numbers in the illustration below depict the order in which operation steps are carried out.



① Press the POWER switch to the ON (▬) position.

② Press the OPEN/CLOSE button and set the cassette in the cassette tray.



③ When listening to a tape that has been recorded with Dolby noise reduction, set the DOLBY NR button to match the system used at the time of recording.
Pressing the DOLBY NR button selects Dolby noise reduction type B (and the [B] indicator lights up).
One more press of the DOLBY NR button selects Dolby noise reduction type C (and the [C] indicator lights up).
Pressing the DOLBY NR button once again switches Dolby noise reduction off.

Dolby NR type B → Dolby NR type C → Dolby NR off →

④ Press the PLAY button to begin playback. The PLAY (▷) indicator will light during playback.

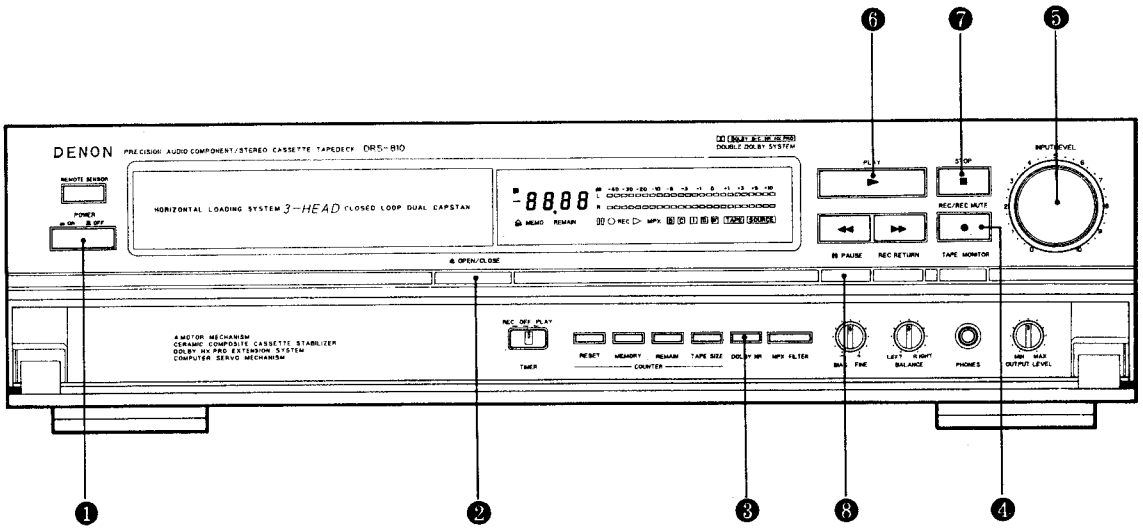
⑤ Press the STOP (■) button to stop the playback.

⑥ To pause the playback, press the PAUSE (❚❚) button. Press the PLAY button to resume playback.

- If different types of Dolby noise reduction are used for record and playback, playback response will be adversely effected.
- If the PLAY, ▶▶ (FF) or ◀◀ (REW) PAUSE, REC/REC MUTE button is pressed while the cassette tray is open, the cassette tray will close and the operation will start.

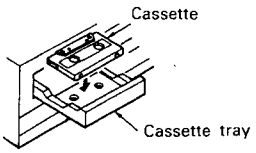
RECORDING

- Switch on your amplifier or receiver and the source component.
- Set the Tape Monitor switch on your amplifier or receiver to the SOURCE position.



① Press the POWER switch to the ON (▬) position.

② Press the OPEN/CLOSE button and set the cassette in the cassette tray.



(Check that the accidental erasure prevention tabs are intact.)

③ Press the DOLBY NR button and select the Dolby NR type that suits the recording.

Recording with Dolby NR type B
(The [B] indicator will light up.)
↓
Recording with Dolby NR type C
(The [C] indicator will light up.)
↓
Recording without Dolby NR

④ Press the REC/REC MUTE (●) button to set the recording pause mode. The ○II indicator will light up.

⑤ Adjust the recording level with the INPUT LEVEL control while watching the Peak Level Meter, than adjust the balance of the left and right channels with the BALANCE control.

⑥ Press the PLAY button to start the recording.
The PLAY (▷) and the ○ indicator will light during recording.

⑦ To stop recording, press the STOP (■) button.

⑧ To pause the recording, press the PAUSE (II) button. Press the PLAY button to resume recording.

Caution :

- Be careful not to erase important recordings by mistake. Inadvertent start of recording will happen in the following cases:
  1. If the PLAY button is pressed while the ○ indicator lights, recordin starts.
  2. If the PLAY (▶) and REC/REC MUTE (●) button are pressed at the same time, recording starts.

The best way to avoid accidental erasure is to break off the two erasure prevention tabs on the cassette housing.

REC RETURN Button

Use of the recording return function is convenient when re-recording or when cancelling a recording. When pressed during recording, the tape is rewound to the position where recording started, and the deck will enter the recording standby mode.

Cautions :

The return position arrived at with the recording return function will be where rewinding has continued about 2 seconds beyond the recording start position. Caution is in order here since it is possible that the end of the previous selection might be erased on tapes that have been recorded without at least 5 seconds of blank spaces between the songs.

MUSIC SEARCH SYSTEM

This device is a convenient system which detects the non-recorded part of more than 4 seconds between melodies, cues the next melody while the present melody is being reproduced or automatically detects the beginning of the melody now being reproduced and makes it into the reproduceable state.

1. For cueing the next melody while the present melody is being reproduced:
   At PLAY mode, depress the PLAY button and the FF button simultaneously. This device will detect the interval between melodies with the CUE state on, automatically become the PLAY mode and begin performing the next melody.
2. For hearing again the melody being reproduced:
   At PLAY mode, depress the PLAY button and the REW button simultaneously. This device will detect the interval between melodies with the REVIEW state on, automatically become the PLAY mode, detect the beginning of the melody now being performed and play it from the first again.

Note about MUSIC SEARCH action:

MUSIC SEARCH is a function which operates by detecting a comparatively long non-recorded part on the tape. Therefore, MUSIC SEARCH may not operate normally in the following cases.

- Sound on the tape is interrupted by speech or conversation.
- Long periods of pianissimo (softly played music) or non-recorded intervals occur on the tape.
- The tape has picked up noise in a non-recorded interval.
- Non-recorded intervals on the tape are less than 4 seconds in length.
- Noise-emitting electrical appliances are in operation nearby. i.e.; Electric razors, drills, refrigerators, etc.

PROPER RECORDING LEVEL

A too high recording level can saturate the tape and cause distortion. On the other hand, it the recording level is set too low, soft passages will be marked by residual noise. A proper recording level is the single most important factor for making well balanced recordings.

Guideline for maximum recording level

TYPE I (Normal)	+1 dB level on peaks
TYPE II (CrO_2)	+3 dB level on peaks
TYPE IV (Metal)	+5 dB level on peaks

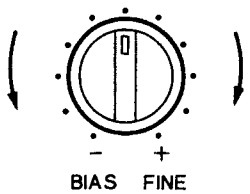
Note: The optimum recording level differs depending on the program source and the type of tape used.

Meter reading differences between Left and Right channels

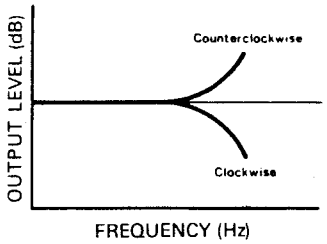
The left and right channel readings of the Peak Level Meter can differ due to variations in the input signal levels. In such cases, use the BALANCE control to adjust the channel input balance until identical meter readings are obtained for both channels.

RECORDING BIAS ADJUSTMENT

For best recording results, monitoring during recording and comparing different recordings using your own judgement are essential.
The DRS-810 is equipped with a BIAS FINE control to assist you in setting the proper bias for different types and brands of tape. At the center stop-click position, the deck is set to the reference bias level for Normal, CrO_2 and Metal tape. If the resulting recording in this position has too much or too little high frequency content, adjusting the BIAS FINE control can be useful to achieve better results.



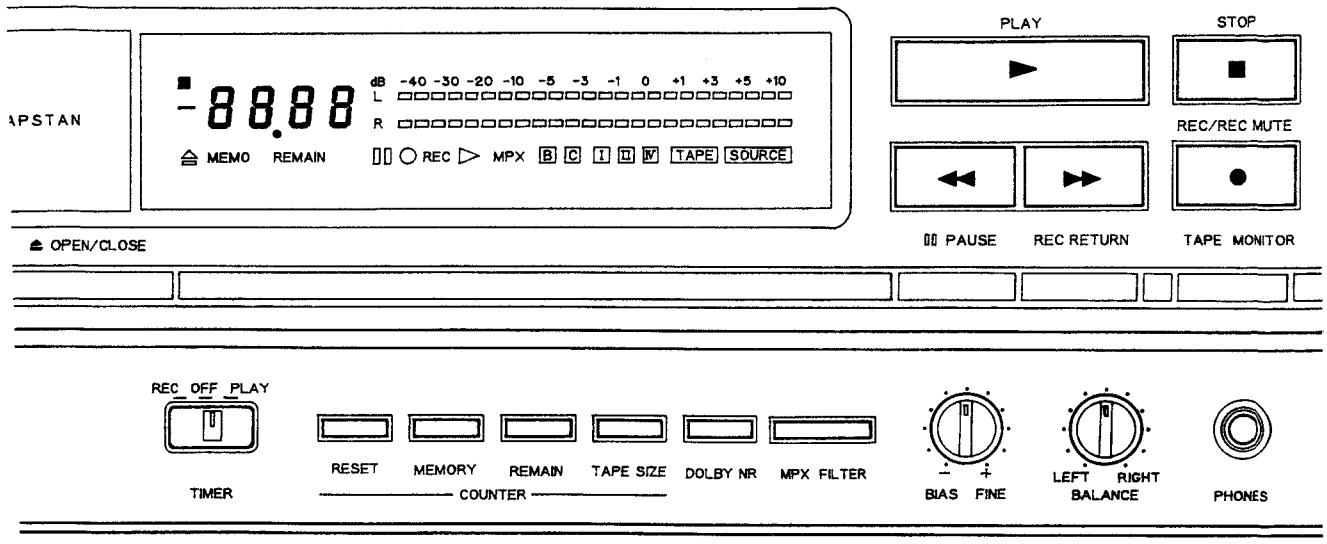
If the high frequencies (treble sounds) are to the boosted, turn the BIAS FINE control counter-clockwise to decrease the bias current. Turn the control clockwise to increase bias current.
By the use of this control, you can record tapes with a frequency response that will perfectly match your listening taste.



REC/REC MUTE AND PAUSE BUTTON

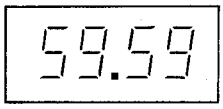
1. To record a 5-second blank section during recording:
   Press the REC/REC MUTE (●) button. A 5-second blank will be recorded and the deck will enter the recording standby mode.
2. To record a 5-second blank section during the recording standby mode:
   Press the REC/REC MUTE (●) button from the recording standby mode. A 5 second blank will be recorded and the deck will enter the recording standby mode again.
3. To cancel recording of blank space:
   Press the PAUSE (❚❚) button. Blank space recording will be cancelled and the deck enters the recording standby mode.
4. To extend the blank section with another 5 seconds or more:
   Simply press the REC/REC MUTE (●) button and the blank section will be increased with another 5 seconds.

TAPE COUNTER AND MEMORY STOP



1) Tape Counter Indicators

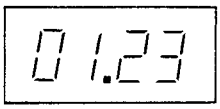
(1) Linear Tape Counter



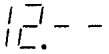
- The tape transport during all modes is indicated in minutes and seconds.
- Press the RESET button to reset the Tape Counter to "00.00".

Note: During recording or playback, the counter indication is useful for noting the location of existing selections or the position from where recording is to start.

(2) Remaining Tape Counter



- The remaining time until the end of the tape is displayed.
- The seconds are not displayed when the remaining time is still more than 8 minutes.



- When playback or recording is started, "-- --" will flash for about 10 seconds.
- The time display does not appear during fast forward winding (FF) or rewinding (REW) of the tape.

CAUTION

The linear tape counter and remaining tape counter of this unit are set in accordance with the selected tape size C-90 C-75 C-60 or C-100.
When using a tape of a special size, select the TAPE SIZE which is nearest to that of the used tape. (The tape counter error will then be smaller.)
Note also that the linear tape counter and remaining tape counter do not work as accurately as a clock. Small deviations may occur because the thickness of the tape differs depending on the type (position, tape length) of the used cassette. Slight errors may also be caused by the difference between cassettes with a large hub and cassettes with a small hub.

2) Operation of MEMORY STOP

(1) During recording or playback operations, MEMORY STOP can be used to locate a particular point on the tape. At the desired point, reset the counter to "00.00". With the MEMORY STOP button in the "ON" position, the deck will stop at the "00.00" point (actually "-00.02" and "00.00") during REWIND operations.

(2) The MEMORY indication will light when this function is activated.

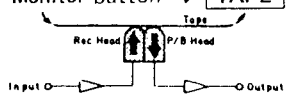
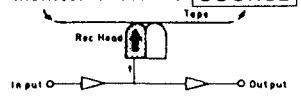
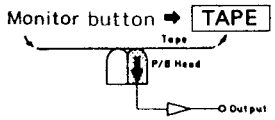
(3) Notes:
- When the power is turned "OFF", this function is automatically deactivated.
- The MEMORY STOP is accurate to -5 on the counter, and will stop between "-00.02" and "00.00".
- The MEMORY STOP is released by pressing the OPEN/CLOSE button.
- The MEMORY STOP does not operate during the REC RETURN.

3) Display Back-up

The functions DOLBY NR, MPX FILTER, MONITOR TAPE SIZE and the counter content are protected by 24-hour memory back-up. After 24 hours, DOLBY NR and MPX FILTER are set to "OFF", MONITOR is reset to "TAPE", TAPE SIZE is set to "C-90" and the counter content is reset to "00.00".

TAPE MONITOR BUTTON

This Stereo cassette deck uses a three-head system which permits simultaneous "off-the-tape monitoring" during recording. Incidentally, as this Stereo Cassette Deck adopts an automonitor system, TAPE or SOURCE can automatically be activated according to the operation conditions. These modes can also be activated manually.

Recording	Monitor button ➡ TAPE 	The signal recorded on the tape is monitored simultaneously "off-the-tape". This monitoring mode enables you easy check for optimum recording levels. In the TAPE mode, the FL PEAK METER indicates the signal levels played back off-the-tape.
	Monitor button ➡ SOURCE 	The SOURCE position enables you to monitor the input source signal before it is recorded on the tape. Using the FL PEAK METER, this mode is convenient for setting recording levels or input level monitoring during recording.
Playback	Monitor button ➡ TAPE 	During playback, the MONITOR button must be placed in the TAPE position. If it is set in the SOURCE position, the signal from the tape won't be heard.

DOLBY B & C NOISE REDUCTION SYSTEM

- The Dolby noise reduction system substantially reduces the tape background noise (hiss) inherent in the cassette medium. Dolby B NR is most widely in use. However, Dolby C NR is a much more recent development and represents a significantly improvements over Dolby B NR.
- Tape background noise consists primarily of high frequency information which is particularly annoying during soft passages. The Dolby NR system increase the level of low volume mid and high frequency signal during recording and reduces the level of these signals by an identical amount during playback. As a result, the playback signal is identical to the original source signal, but the level of background noise generated by the tape is greatly reduced.
- The operating principle of Dolby C NR is similar to that of Dolby B NR except for the encoding/decoding response curves. The noise reduction effect obtained with Dolby C NR is up to 20dB, compared to 10dB with Dolby B NR. In addition, Dolby C NR uses an anti-saturation network and spectral skewing circuitry, for a significant improvement in the dynamic range of the mid- to high-frequencies.

DOLBY HX-PRO HEADROOM EXTENSION SYSTEM

This deck is equipped with the DOLBY HX-PRO headroom extension system. Since the system functions automatically during recording, no switching operation or adjustment is required. The system is effective with any type of Normal, CrO_2 or Metal tapes.

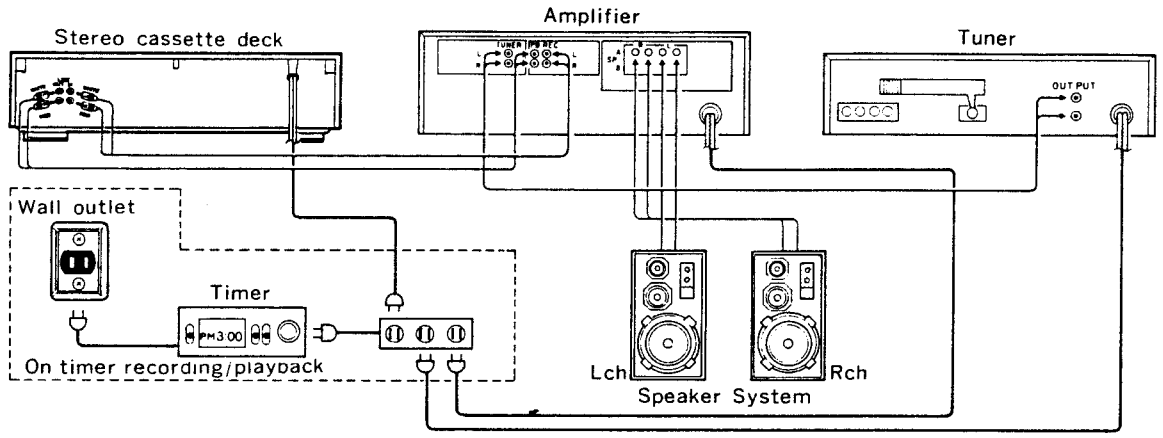
The Dolby HX-PRO headroom extention system functions during recording to lift up the saturation level in the treble range. Therefore, most of the treble range components distorted or lost during recording on conventional cassette decks are more faithfully recorded on tne new DRS-810 cassette deck.

Features of the DOLBY HX-PRO headroom extension system

(1) Performance of Normal and CrO_2 tapes can be upgraded closer to that of Metal tapes.
(2) The dynamic range in the treble is improved significantly.
(3) Since no decoding in playback is necessary, the improvement can be obviously heard on any hi-fi playback system including portable components and car systems.
(4) The system functions whether the Dolby B/C NR is engaged or not.

TIMER RECORDING/PLAYBACK

Timer recording/playback can be made using any audio timer available on the market.



●Timer recording procedure

1. Make sure the connections are correct, especially the power supply connections.
2. Turn "on" the power switch of each appliance.
3. Tune the desired station on the tuner.
4. Load the tape for recording. (Make sure the erase prevention tab is not broken off; if it is, cover the hole with plastic tape).
5. Set the Dolby NR switch to the appropriate position.
6. Make sure the monitor switch to the SOURCE position.
7. Adjust the recording input level.
8. Set the starting position of the tape.
9. Set the timer switch (TIMER) to the "rec" side.
10. Set the audio timer to the desired time. The audio timer will turn the power supply on at the desired time.

*With the above procedures, timer controlled recording can be made. When the preset time comes, the power is supplied and the FM broadcast can be recorded.

●Timer playback procedure

1. Make sure the connections are correct, especially the power supply connections.
2. Turn "on" the power switch of each appliance.
3. Load the pre-recorded tape to be played back.
4. Set the Dolby NR switches to the appropriate positions.
5. Set the monitor switch of the Amplifer to the TAPE (▙) position.
6. Press the PLAY (▶) button and playback the tape; adjust the playback level.
7. Set the timer switch (TIMER) to the "play" side.
8. Set the audio timer to the desired time. The audio timer will turn the power supply on at the desired time.

*With the above procedures, timer playback can be accomplished. When the preset time comes, the power is supplied and playback will start.

Note:

- Please read the operating instructions for the timer before use.
- If the timer recording or playback is not desired, be sure to switch the timer switch (TIMER) to "off".
- When using timers that allow several "on/off" operations, timer start functioning can continue an unlimited number of times until the tape in the machine is finished.

TROUBLESHOOTING

Check the following before you draw the conclusion that your Stereo Cassette Deck is malfunctioning.

1. Are all the connections correct?
2. Are all system components being operated correctly in accordance with the operating instructions?
3. Are the speakers and amplifier/receiver functioning correctly?

If the tape deck still does not function properly, check the symptom against the list below. If the symptom does not correspond to the check list, please contact your DENON dealer.

Problem	Cause	Remedy
Tape does not run.	• Power cord is disconnected. • Tape is loose. • Cassette is not loaded properly. • Defective cassette.	• Check power cord. • Tighten tape with a pencil, etc. • Load cassette properly. • Replace cassette.
Tape is not recorded when REC/REC MUTE (●) button is pressed.	• No cassette is loaded. • Erase prevention tabs are brocken off.	• Load cassette. • Cover holes with adhesive tape.
Sound is warbled and distorted.	• Heads, capstan or pinchroller are dirty. • Tape is wound too tight. • Recording input level is too high. • Tape is worn out and has "drop-outs".	• Clean them. • Fast forward or rewind to loosen tape winding. • Adjust recording input level. • Replace tape.
Excessive noise.	• Tape is worn. • Heads, capstan or pinchroller are dirty. • Heads are magnetized. • Recording input level is too low.	• Replace them. • Clean them. • Demagnetize heads. • Adjust recording input level.
High frequency range (treble) is emphasized.	• Dolby NR switch is set improperly.	• Set Dolby NR Switch properly.
High frequency range (treble) is lost.	• Head are dirty. • Tape is worn.	• Clean them. • Replace tape.

SPECIFICATIONS

Type Horizontal tape loading; 4-track 2-channel stereo cassette deck

Heads Record & Playback (combination head) × 1
Erase (Double gap ferrite head) × 1

Motors Capstan (DC servo motor) × 1
Reel (DC motor) × 1
Actuator (DC motor) × 1
Loading (DC motor) × 1

Tape Speed 4.8 cm/sec.

Fast Forward, Rewind Time Approx. 100 sec. with a C-60 cassette

Recording Bias Approx. 105 kHz

Overall S/N Ratio (at 3% THD level) Dolby C NR on: more than 75 dB (CCIR/ARM)

Overall Frequency Response 20~20.000Hz±3 dB (at −20 dB, Metal tape)

Channel Separation More than 40 dB (at 1 kHz)

Crosstalk More than 65 dB (at 1 kHz)

Wow & Flutter 0.038% wrms (JIS method), ±0.1% w. peak

Input LINE 80 mV (−20 dBm) input level at maximum
Input impedance: 50 kohm unbalanced

Output LINE 620mV(0dB) output level at maximum (with 47 kohm load, recorded level of 200 pwb/mm)

PHONES 1.2 mW output level at maximum (optimum load impedance 8 ohm ~ 1.2 kohm)

Accessories Parallel pin cord × 2

Power Supply 50 Hz/60 Hz, voltage is shown on rating label

Power Consumption 15 W

Dimensions 434 (W)×122 (H)×320 (D)mm (17-8/32″×4-51/64″×12-19/22″)

Weight 6.6kg

* Above specifications and design are subject to change without prior notice.

Best result will be obtained with use of DENON DX and HD Series Cassette tapes.

Dolby noise reduction and HX PRO headroom extension systems manufactured under license from Dolby Laboratories Licensing Corporation. HX PRO originated by Bang & Olufsen.

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